

NIEHS/NTP-Supported Unique Grants Program

The NIEHS Division of Extramural Research and Training (DERT), in collaboration with the National Toxicology Program (NTP), initiated a unique grants program in 1997 that funds investigator-initiated research to provide data to aid in defining the mechanism of action of agents under study by the NTP. This program uses the NIH R03 Small Grant mechanism to encourage investigator-initiated hypothesis-driven investigations utilizing animals/tissues/cells from animals undergoing the NTP two-year cancer bioassay or shorter toxicologic characterizations. Applications are requested by a specific Request for Applications (RFA) with specific application deadlines and research objectives. Funding is for one or two years at \$50,000 direct costs per year.

This program benefits both the NTP and the extramural scientific community. Data provided by the grantees enables the NTP to expand its expertise base to the scientific community, thereby obtaining mechanistic data that cannot be produced in the contract laboratory setting. The scientific community, by taking advantage of the NTP protocols, has access to animals and tissues they could not afford to generate and are provided funding to run mechanistic studies in their areas of expertise. The data generated are valuable to the NTP in assessing the mechanism of toxicity of the tested chemicals. They also provide preliminary data to investigators that may be useful in generating further independent funding.

The NTP studies a wide variety of environmental, industrial, and consumer products for their toxic effects using a broad array of test systems, for the purpose of generating data to strengthen the scientific foundations for risk assessment. These bioassays, which typically employ rats and mice dosed for periods of up to two years, are conducted for the NTP in contract laboratories. While some studies can be done in contract laboratories to address issues related to mechanism of action, it was recognized that other investigators might take advantage of tissues and other study materials to address research ideas they may have related to the chemicals under study. It was anticipated that these investigator-initiated research projects, when combined with the wide range of standard data collected, would complement the NTP studies and improve the risk assessment process. To date, the NIEHS has released three RFAs to augment the NTP studies on dioxin and dioxin-like compounds, peroxisome proliferators, and disinfection by-products. The quality and quantity of the data produced have been outstanding and will significantly impact the quality and quantity of the mechanistic data generated by the NTP as well as aid in the interpretations of the NTP assays.

The DERT plans to continue to develop this small grants program in collaboration with the NTP. Areas under discussion for possible future initiatives include the use of investigator-initiated studies to generate data from NTP studies using genomic, proteomic, metabonomic, and transgenic technologies.

New RFAs will be announced in the NIH guide at <http://grants.nih.gov/grants/guide/index.html>, on the DERT home page at <http://www.niehs.nih.gov/dert/rfa.htm> and under the NTP.

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